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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,117

03/31/2004

Erol Girt

3703

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7590

08/07/2007

EXAMINER

RICKMAN, HOLLY C

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

08/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/813,117	Applicant(s) GIRT ET AL.	
	Examiner Holly Rickman	Art Unit 1773	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,14,15,17,21,22,25 and 27-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,14-15,17,21,25,27-40 is/are allowed.
- 6) ☒ Claim(s) 2-5,7 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/29/07 has been entered.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The rejection of claims 1, 5, 7, 14, 17, 21 and 25 under 35 U.S.C. 102(e) as being anticipated by Nolan (US 2004/0258963) is withdrawn in view of Applicant's amendments.

4. Claims 2-5, 7, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Nolan (US 7211340).

Nolan discloses a magnetic recording medium having a substrate formed from NiP-coated AlMg, a first crystalline layer, a second hcp crystalline layer, a third crystalline layer and

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a magnetic recording layer formed from a CoCr alloy. Each of the crystalline layers is non-magnetic. See col. 10, line 32 to col. 11, line 4. Nolan teaches the use of hcp materials such as Co for the first crystalline layer. It is the examiner's intention that the group of suitable materials disclosed for use as the first crystalline layer is small enough that one of ordinary skill in the art at the time of invention would have immediately envisaged an embodiment of the invention using hcp Co. See col. 13, lines 33-57.

5. Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Girt et al. (US 2004/0247943).

Girt discloses a magnetic recording medium having a substrate formed from NiP-coated AlMg, multiple underlayers including a first crystalline layer, a second hcp crystalline layer, a third crystalline layer and a magnetic recording layer. Each of the crystalline layers is non-magnetic. The reference teaches that the hcp layer contains minor amounts of a bcc-structured elements selected from the group including W, Mo, Ta, Nb, Cr, and V (see paragraph [0029]).

***Claim Rejections - 35 USC § 103***

6. The rejection of claims 2-4, 15, and 22 under 35 U.S.C. 103(a) as being unpatentable over Nolan (US 2004/0258963) is withdrawn.

***Allowable Subject Matter***

7. Claims 1, 14-15, 17, 21, 25, and 27-40 are allowable over the closest prior art to Nolan and Okuyama et al. (US 6682834). Nolan fails to teach or suggest the claimed multi-layered

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intermediary structure in combination with a magnetic layer having a Cr-rich and a Cr-dilute layer containing specific amounts of Cr.

Okuyama et al. teaches a magnetic recording medium having multiple underlayers and a magnetic recording layer having a "Cr-rich layer" and a "Cr-dilute layer." The reference teaches a single hcp interlayer that is disposed between the multiple underlayers and the magnetic recording layer. It would not have been obvious to modify Okuyama et al to include a "third intermediary layer. It would not have been obvious to arrive at the claimed invention in view of either Nolan or Okuyama et al.

8. y inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (571) 272-1514. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Holly Rickman  
Primary Examiner  
Art Unit 1773